

# **Historic Fill Workgroup Summary**

## **Handouts**

**1/25/2007**

### **Option A: Quick In/Quick Out - Notification Retraction**

Sites having contamination consistent with Historic Fill (i.e., pursuant to a definition of Historic Fill, background standards, or other descriptive material published by MassDEP), and having no other point source(s) of contamination would be able to retract the notification of such release. Notification Retractions for historic fill releases would be similar to other notification retractions.

#### Criteria

- Release meets definition/is consistent with characteristics of historic fill
  - Contaminants that are characteristic of historic fill (e.g., meet the definition of Historic Fill)
  - Typical historic fill levels are not exceeded
- Release cannot be attributed to any other known point source

#### Performance Standards

- Sufficient assessment and investigative actions to support a conclusion that historic fill is the sole source of the contamination
- Documentation requirements – TBD

#### Effect of Retraction

- Terminates all future response action requirements and submittals that would have otherwise been necessary
- Does not relieve a person from the obligation to notify MassDEP of a release or conducting any response actions that are required to address releases not subject to the Retraction

## **Option 2: Provide an Endpoint Within the MCP: Historic Fill Status**

Sites with Historic Fill Status would be recognized as having contamination consistent with use of historic fill and no other point source(s) of contamination. Similar to Downgradient Property Status, the Historic Fill Status would suspend Annual Compliance Fees and MCP deadlines.

### Criteria

- Release meets definition/is consistent with characteristics of historic fill
  - Contaminants that are characteristic of historic fill (e.g., meet the definition of Historic Fill)
  - Typical historic fill levels are not exceeded
- Release cannot be attributed to any other known point source
- Must be in compliance with the MCP: notification to MassDEP was made and any necessary response actions were properly conducted
- Person seeking status did not contribute to or worsen release
- [Person is not affiliated with person(s) who are potentially liable under c.21E – *similar to DPS?*]

### Performance Standards

- Sufficient assessment and investigative actions to support a conclusion that historic fill is the sole source of the contamination

### Effect of Status

- Deadlines for Tier Classification and Comprehensive Response Actions are suspended
- Annual Compliance Fees are suspended
- Status does not relieve a person from the obligation to notify MassDEP of a release, performing an Immediate Response Action, or conducting response actions required to address releases not subject to the Status

### Option III: MCP Lite – RAO-F

Sites having contamination consistent with Historic Fill (i.e., pursuant to a definition of Historic Fill, background standards, or other descriptive material published by MassDEP), and having no other point source(s) of contamination would be able to achieve a Response Action Outcome (RAO-F?) for the property evaluated.

#### Criteria

- Release meets definition/is consistent with characteristics of historic fill
  - Contaminants that are characteristic of historic fill (e.g., meet the definition of Historic Fill)
  - Typical historic fill levels are not exceeded or it is otherwise documented that the concentrations are due solely to historic fill
- Release cannot be attributed to any other known point source

#### Performance Standards

- Sufficient assessment and investigative actions to support a conclusion that historic fill is the sole source of the contamination
- Investigation of conditions associated with historic fill may be limited to the property being investigated
- **Documentation would be commensurate with the size, nature and complexity of the issue under investigation .**
- *[Activity and Use Limitation required? Or would RAO-F label be sufficient to inform future owners of the historic fill present?]*

#### Effect of RAO-F Approach

- RAO-F wouldn't mean "No Risk" but would indicate no further response action was necessary or expected due to the nature of the material.
- Notification exemption for fill-related material would be eliminated, leveling the playing field
- "Background" term would apply to natural background conditions (even naturally high background, such as arsenic in Worcester County, etc...)
- Timelines would not change from current MCP timelines.
- RAO-F fee could be different.
- Historic Fill determinations could be reviewed by DEP
- RAO may be achieved at any point in the process – it could be a Quick In/Quick Out.

**Historic Urban Fill (HUF)  
Management Standards DRAFT**

<b>CHEMICAL<sup>1</sup></b>	<b>Concentration (mg/kg)</b>							
	<b>Background<sup>2</sup></b>	<b>RCS-2<sup>3</sup></b>	<b>S3-GW2<sup>4</sup></b>	<b>UCL<sup>5</sup></b>	<b>Comm-97<sup>6</sup> (unlined)</b>	<b>Comm-97<sup>6</sup> (lined)</b>	<b>RC-HUF<sup>7</sup></b>	<b>S3-GW2 BUD<sup>8</sup></b>
ANTIMONY	7	30	30	300	-	-	30	16
ARSENIC	20	20	20	200	40	40	20	11
BARIUM	50	3,000	5,000	10,000	-	-	5,000	2,100
CADMIUM	3	30	30	300	30	80	30	16
CHROMIUM (TOTAL)	40	200	200	2,000	1,000	1,000	1,000	570
CHROMIUM(VII)	40	3,000	5,000	10,000	-	-	5,000	960
LEAD	600	300	300	3,000	1,000	2,000	1,000	110
MERCURY	1	30	30	300	10	10	30	16
NICKEL	30	700	700	7,000	-	-	700	350
SELENIUM	1	800	800	8,000	-	-	800	390
SILVER	5	200	200	2,000	-	-	200	110
THALLIUM	5	60	80	800	-	-	80	37
VANADIUM	30	1,000	1,000	10,000	-	-	1,000	530
ZINC	300	3,000	5,000	10,000	-	-	5,000	5,000
ACENAPHTHENE	2	2,500	5,000	10,000	-	-	5,000	5,000
ACENAPHTHYLENE	1	1,000	2,500	10,000	-	-	2,500	110
ANTHRACENE	4	2,500	5,000	10,000	-	-	5,000	5,000
BENZO(a)ANTHRACENE	9	40	300	3,000	-	-	300	160
BENZO(a)PYRENE	7	4	30	300	-	-	30	16
BENZO(b)FLUORANTHENE	8	400	300	3,000	-	-	300	160
BENZO(g,h,i)PERYLENE	3	2,500	2,500	10,000	-	-	2,500	5,000
BENZO(k)FLUORANTHENE	4	40	3,000	10,000	-	-	3,000	1,600
BERYLLIUM	1	1	3	30	-	-	3	10
CHRYSENE	7	10	40	400	-	-	40	3,400
DIBENZO(a,h)ANTHRACENE	1	4	30	300	-	-	30	16
FLUORANTHENE	10	3,000	5,000	10,000	-	-	5,000	5,000
FLUORENE	2	2,000	5,000	10,000	-	-	5,000	5,000
INDENO(1,2,3-cd)PYRENE	3	40	300	3,000	-	-	300	160

**Historic Urban Fill (HUF)  
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<b>CHEMICAL<sup>1</sup></b>	<b>Concentration (mg/kg)</b>							
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METHYLNAPHTHALENE	1	1,000	2,000	10,000	-	-	2,000	12
NAPHTHALENE	1	40	40	10,000	-	-	40	14
PHENANTHRENE	20	100	2,500	10,000	-	-	2,500	3,000
PYRENE	20	3,000	5,000	10,000	-	-	5,000	5,000
C5-C8 Aliphatic Hydrocarbons	-	500	500	5,000	-	-	500	500
C9-C12 Aliphatic Hydrocarbons	-	2,500	5,000	20,000	-	-	5,000	5,000
C9-C10 Aromatic Hydrocarbons	-	500	500	5,000	-	-	500	500
C9-C18 Aliphatic Hydrocarbons	-	2,500	5,000	20,000	-	-	5,000	5,000
C19-C36 Aliphatic Hydrocarbons	-	5,000	5,000	20,000	-	-	5,000	5,000
C11-C22 Aromatic Hydrocarbons	-	2,000	5,000	10,000	-	-	5,000	5,000
Total Petroleum Hydrocarbons (TPH)	-	2,000	5,000	10,000	2,500	5,000	5,000	500
Total PCBs	-	2	2	100	<2	<2	2	1.6
Total SVOCs	-	-	-	-	100	100	-	-
Total VOCs	-	-	-	-	4	10	4	-

<sup>1</sup> All hydrocarbon fraction values from *Characterizing risks posed by petroleum contaminated sites: implementation of the MADEP VPH/EPH approach*, Mass DEP Final Policy, October 31, 2002

<sup>2</sup> Urban background levels for soil with wood ash/coal ash, from *Background levels of polycyclic aromatic hydrocarbons and metals in soil*, Mass DEP technical update, May 23, 2002

<sup>3</sup> Reportable concentrations in soil, from MCP

<sup>4</sup> Combined soil and groundwater levels, from MCP

<sup>5</sup> Upper concentration limits, from MCP

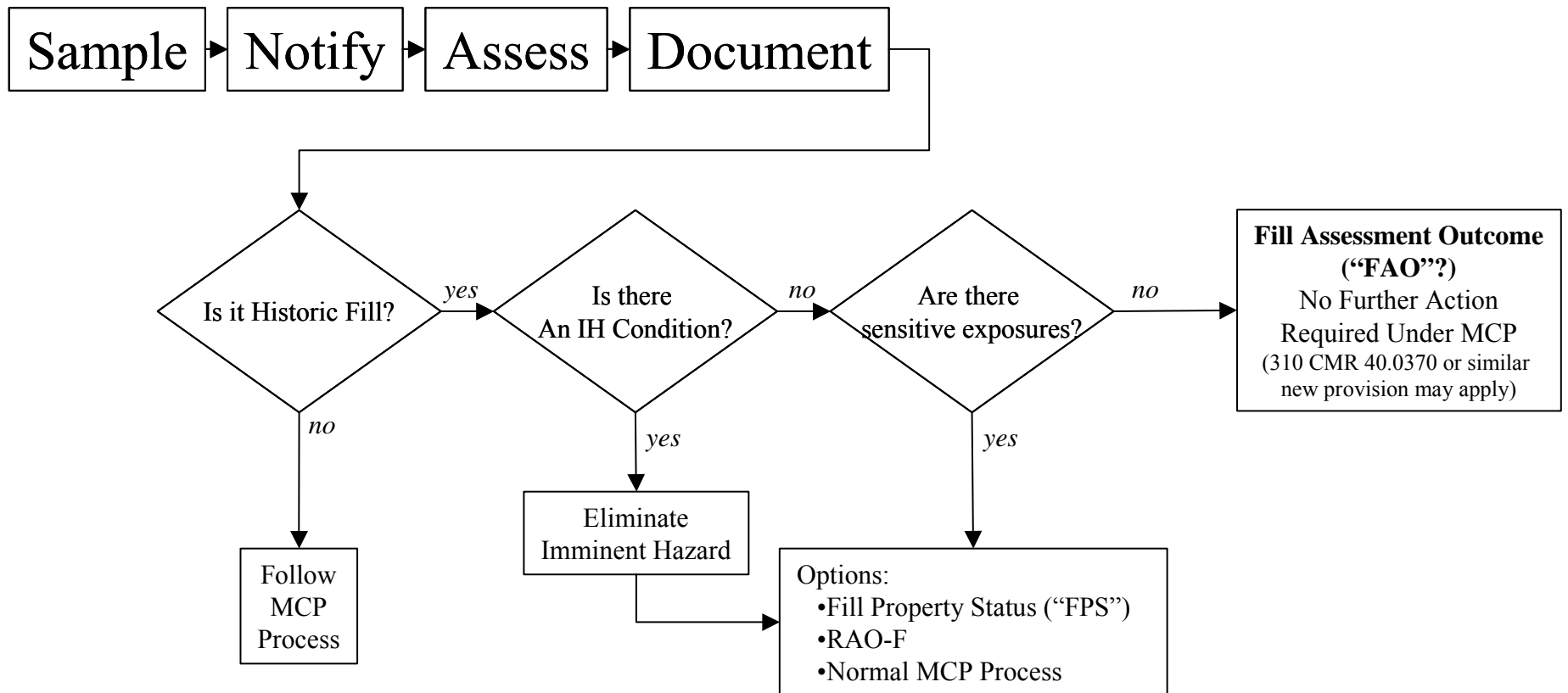
<sup>6</sup> landfill concentrations levels, from Mass DEP Policy #Comm-97-001

<sup>7</sup> RC-HUF - initial recommendation from Duff et al

<sup>8</sup> Proposed S-3, GW-2 Beneficial Use Determination values, Mass DEP

# Historic Fill Sites: Strawman Proposal

*from 1/11/07 Workgroup Meeting*



**Timeline:** 1 year following notification, there must be an FAO, Tier Classification, DPS, FPS or RAO.